

What is claimed is:

1. A patella-femoral brace comprising:

a support member configured to be worn about the knee of a user, said support
5 member having an upper portion extending above the knee and a lower portion extending
below the knee;

a pressure cuff attachable to said support member in a position adjacent at least a
portion of a periphery of the user's patella;

said support member having a plurality of connection points, said plurality of
10 connection points located on at least one of opposite sides of the knee, above the knee, and
below the knee

a plurality of connection members attachable between said pressure cuff and
selective ones of said plurality of connection points on said support member; and

said pressure cuff being adjustable via connection of said plurality of connection
15 members to said selective ones of said plurality of connection points to apply force to the
patella in a plurality of directions.

2. The brace of claim 1 wherein said plurality of directions comprises a medial-lateral
direction, an inferior-superior direction, and intermediate directions.

3. The brace of claim 1 further comprising at least one of said plurality of connection
members having an adjustable length.

4. The brace of claim 1 wherein said support member is a sleeve, and further
25 comprising:

a buttress adapted for positioning around at least a portion of the periphery of the patella; and

said buttress positioned between said pressure cuff and the patella.

5 5. The brace of claim 1 wherein said support member further comprises a first upper rigid arm connected by a first hinge to a first lower rigid arm, said first hinge located proximate the knee on a first side thereof, said first upper rigid arm extending above the knee and said first lower rigid arm extending below the knee.

10 6. The brace of claim 5 wherein said support member further comprises a second upper rigid arm connected by a second hinge to a second lower rigid arm, said second hinge located proximate the knee on a second side thereof, said second upper rigid arm extending above the knee and said second lower rigid arm extending below the knee.

15 7. The brace of claim 6 wherein said support member further comprises a sleeve in combination with said first and second upper and lower rigid arms, said sleeve adapted to locate about the knee of the user.

20 8. The brace of claim 7 further comprising:
at least one of said first and second upper and lower rigid arms having said plurality of connection points provided at spaced apart locations thereon;
at least one of said first and second hinges having an attachment portion;
said plurality of connection members attachable to at least one of said attachment portion of and said plurality of connection points; and

wherein attachment of said plurality of connection members to selective ones of said plurality of connection points varies said position at which said pressure cuff is held against the patella such that the direction in which said pressure cuff applies force to the patella is adjustable.

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9. The brace of claim 8 further comprising:

a first one of said plurality of connection members attachable to said attachment portion of one of said first and second hinges;

a second one of said plurality of connection members attachable to respective ones of said plurality of connection points on said second upper rigid arm;

a third one of said plurality of connection members attachable to respective ones of said plurality of connection points on said second lower rigid arms; and

wherein attachment of said second and third ones of said plurality of connection members to selective ones of said plurality of connection points on said second upper and lower rigid arms varies said position at which said pressure cuff is held against the patella such that the direction in which said pressure cuff exerts force on the patella is adjustable.

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10. The brace of claim 8 further comprising:

a first pair of said plurality of connection members attachable to respective ones of said plurality of connection points on said first upper and lower rigid arms, one of said first pair attachable to said first upper rigid arm and the other of said first pair attachable to said first lower rigid arm;

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a second pair of said plurality of connection members attachable to respective ones of said plurality of connection points on said second upper and lower rigid arms, one of

said second pair attachable to said second upper rigid arm and the other of said second pair attachable to said second lower rigid arm;

wherein attachment of each of said first and second pairs of said plurality of connection members to selective ones of said plurality of connection points varies said position at which said pressure cuff is held against the patella such that the direction in which said pressure cuff exerts force on the patella is adjustable.

11. The brace of claim 4 further comprising:

said buttress having a generally concave outer surface; and

said pressure cuff having a generally convex inner surface configured to mate with said generally concave outer surface of said buttress.

12. The brace of claim 11 further comprising said buttress having a relatively soft cushioned liner on an inner side thereof adjacent the patella, said liner conforming to the specific shape of the patella of a particular user to provide an enhanced fit when said pressure cuff exerts force against said patella via said buttress.

13. The brace of claim 1 further comprising:

said plurality of connection members attachable to said plurality of connection points via a hook and loop fastener system;

said plurality of attachment points forming either the hook or loop portion of the fastener system; and

a distal part of each of said plurality of connection members forming the other portion of the fastener system.

14. The brace of claim 13 further comprising at least one of said plurality of connection members having an adjustable length.

15. The brace of claim 1 further comprising:

5 at least one of said plurality of connection points having an aperture therein; and
at least one of said plurality of connection members having a distal part thereof
with a protrusion configured to be received in said aperture to connect thereto.

16. The brace of claim 11 wherein said pressure cuff has an arcuate shape and further
10 comprising:

said plurality of connection members being three connection members attached at
each end of said arcuate shape and near a midpoint thereof, respectively;

one of said three connection members attached between said midpoint and said
attachment portion first and hinge; and

15 another two of said three connection members attached between each end of said
arcuate shape and respective ones of said first upper and lower rigid arms.

17. The brace of claim 11 wherein said pressure cuff has a circular or nearly circular
shape and further comprising:

20 said plurality of connection members being four connection members attached at
four generally equally spaced locations on said pressure cuff;

respective ones of said four connection members at said four locations attached to
respective ones of said first and second upper and lower rigid arms.

25 18. A patella femoral brace comprising:

a sleeve configured fit snugly about a user's leg proximate the knee;

a pressure cuff exerting a force on at least a portion of a periphery of the user's patella;

said pressure cuff having one side attached to said sleeve, and upper and lower connection members extending from said one side;

said upper connection member attachable to an opposite side of said sleeve at multiple locations above the patella;

said lower connection member attachable to an opposite side of said sleeve at multiple locations below the patella;

wherein attachment of said upper and lower connection members to selective ones of said multiple locations above and below the patella enable said force exerted by said pressure cuff on the patella to be selectively applied in a plurality of directions.

19. The brace of claim 18 wherein said plurality of directions comprises a medial-lateral direction, an inferior-superior direction, and intermediate directions.

20. The brace of claim 18 further comprising a buttress member surrounding the patella, said buttress member held in position by said sleeve, and said buttress member is positioned intermediate the patella and said pressure cuff.

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21. The brace of claim 20 further comprising:

a first upper rigid arm connected by a first hinge to a first lower rigid arm with said first hinge located proximate the knee; and

said first upper and lower rigid arms located at said opposite side of said sleeve.

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22. The brace of claim 51 further comprising:

a second upper rigid arm connected by a second hinge to a second lower rigid arm with said first hinge located proximate the knee; and

said second upper and lower rigid arms located at said one side of said sleeve.

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23. The brace of claim 18 further comprising at least one of said upper and lower connection members having an adjustable length.

24. The brace of claim 23 wherein attachment of said upper and lower connection members to said multiple locations is accomplished via a hook and loop fastener system, and further comprising:

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said multiple locations formed by either the hook or loop portion of said fastener system;

said upper and lower connection members having a distal part thereof forming the other of the hook and loop fastener system; and

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wherein each of said multiple locations and said adjustable length are enabled by said hook and loop fastener system.